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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/047,065	01/15/2002	Yoshifuru Saito	34299	5335

116   7590   06/08/2006

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EXAMINER
COUGHLAN, PETER D

ART UNIT	PAPER NUMBER
2129	

DATE MAILED: 06/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

		Application No.	Applicant(s)
Office Action Summary		10/047,065	SAITO ET AL.
		Examiner	Art Unit	
		Peter Coughlan	2129	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 January 2002*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-9* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *15 January 2002* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☒ Some * c)☐ None of:

      1.☒ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date *9/30/02*.

4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

Detailed Action

1.   Claims 1-9 are pending in this application.

35 USC § 101

2.   35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine,
> manufacture, or composition of matter, or any new and useful
> improvement thereof, may obtain a patent therefor, subject to the
> conditions and requirements of this title.

Claims 1-9 are rejected under 35 U.S.C. 101 for nonstatutory subject matter.
The computer system must set forth a practical application of that § 101 judicial
exception to produce a real-world result. Benson, 409 U.S. at 71-72, 175 USPQ
at 676-77. The invention is ineligible because it has not been limited to a
substantial practical application. The invention states its purpose is a market
trend analyzer but what is the domain of the 'market' and what parameters does
it analyze? There has to be a real world result of the invention.

In determining whether the claim is for a "practical application," the focus is
not on whether the steps taken to achieve a particular result are useful,
tangible and concrete, but rather that the final result achieved by the claimed
invention is "useful, tangible and concrete." If the claim is directed to a
practical application of the § 101 judicial exception producing a result tied to

the physical world that does not preempt the judicial exception, then the claim

meets the statutory requirement of 35 U.S.C. § 101.

Information in regards to the generation of the incoming data and how is

manifests itself for the user needs to fulfill a real world application. Is the

market analyzing method for birth defects, mining operations or international

currency exchange rates?

The invention must be for a practical application and either:

1) specify transforming (physical thing) or

2) have the FINAL RESULT (not the steps) achieve or produce a

useful (specific, substantial, AND credible),

concrete (substantially repeatable/ non-unpredictable), AND

tangible (real world/ non-abstract) result.

A claim that is so broad that it reads on both statutory and non-statutory subject

matter, must be amended, and if the specification discloses a practical

application but the claim is broader than the disclosure such that it does not

require the practical application, then the claim must be amended.

Claims that are broad enough to encompass a number or tangible fields

or topics are not statutory. The result has to be a practical application and not a

general method or algorithm that can be applied to numerous applications.

Please see the interim guidelines for examination of patent applications for

patent subject matter eligibility published November 22, 2005 in the official

gazette.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35

U.S.C. 102 that form the basis for the rejections under this section made in this

Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-9 are rejected under 35 U.S.C. 102(b) (hereinafter referred to as

Wong) being anticipated by Wong, 'The analysis of the performance of the

exchange rate of the Australian dollar using waveform dictionaries'.

Claim 1.

Wong anticipates performing a wavelet transform on numerical data,

obtained by numericizing information acquired by monitoring market trends, to

obtain a wavelet spectrum of said numerical data (**Wong,** p195 C1:25-41;

'Market trends' of applicant is equivalent to 'location, frequency and scale' of

Wong.); and expressing the data such as to show an amount of information at

each rate of change of said numerical data. (**Wong,** p195, C2:1-10; 'Rate of

change' of applicant is equivalent to 'foreign exchange rate' of Wong.)

Claim 2.

Wong anticipates performing a multi-resolution analysis of numerical data,
obtained by numericizing information acquired by monitoring market trends,
using a discrete wavelet transform (**Wong,** p195 C1:25-41; 'Market trends' of
applicant is equivalent to 'location, frequency and scale' of Wong.); and
expressing the data such as to show an amount of information at each rate of
change of said numerical data. (**Wong,** p195, C2:1-10; 'Rate of change' of
applicant is equivalent to 'foreign exchange rate' of Wong.)

Claim 3.

Wong anticipates performing a multi-resolution analysis of numerical data,
obtained by numericizing information acquired by monitoring market trends,
using a discrete wavelet transform with a plurality of base functions to obtain
multi-resolution analysis results based on each of said plurality of base functions
(**Wong,** p195 C1:25-41; 'Market trends' of applicant is equivalent to 'location,
frequency and scale' of Wong. 'Base functions' of applicant is equivalent to 'Dirac
Delta' functions of Wong.); determining a correlation factor between the
respective multi-resolution analysis results and said numerical data (**Wong,**
p195, C2:15-21; 'Correlation factor' of applicant is equivalent to 'frequency
activities' between the Australian dollar and the Japanese yen, British pound and
Hong Kong dollar of Wong.); and assessing, based on said correlation factor,
rates of reproduction in said numerical data according to the multi-resolution
analysis results when using each of said plurality of base functions. (**Wong,**
p195, C2:15-21; Wong illustrates both high and low frequency activities of

approximate of market trends. 'Assessing' of applicant is demonstrated by Wong by the signal nature is 'smooth and regular'.)

Claims 4, 9.

Wong anticipates a convolution operation is performed using the multi-resolution analysis results with high rates of reproduction based on the results of assessment of said rates of reproduction. (**Wong,** P196, C1:1-22; 'Convolution operation' of applicant is equivalent to 'extracting information from spikes' of Wong. This eliminates the 'noise' of lower rates or frequencies.)

Claim 5.

Wong anticipates data sorting means for forming a data set organized by monitored categories out of numerical data obtained by numericizing information acquired by monitoring market trends (**Wong,** p195 C1:25-41; 'Market trends' of applicant is equivalent to 'location, frequency and scale' of Wong.); and converting means for performing a wavelet transform on said data set (**Wong,** p195, C1:25-41; 'Converting means' of applicant is equivalent to 'waveform dictionaries' of Wong.); wherein the wavelet spectrum obtained by said converting means is used to express the data such as to show an amount of information at each rate of change of said numerical data. (**Wong,** p195, C2:1-10; 'Rate of change' of applicant is equivalent to 'foreign exchange rate' of Wong.)

Claim 6.

Wong anticipates data sorting means for forming a data set organized by
monitored categories out of numerical data obtained by numericizing information
acquired by monitoring market trends (**Wong,** p195 C1:25-41; Examples of
market trends or categories of applicant is equivalent to 'location, frequency and
scale' of Wong.); and analyzing means for performing multi-resolution analysis
using a discrete wavelet transform on said data set (**Wong,** p195 C1:25-41);
wherein the results of the multi-resolution analysis by said analyzing means are
used to express the data such as to show an amount of information at each rate
of change of said numerical data. (**Wong,** p195, C2:1-10; 'Rate of change' of
applicant is equivalent to 'foreign exchange rate' of Wong.)

Claim 7.

Wong anticipates computing means for summing the analysis results for a
plurality of levels in the multi-resolution analysis results of said analyzing means.
(**Wong,** abstract, 'Summing the analysis results' of applicant is equivalent to
'displaying the results of Wong.)

Claim 8.

Wong anticipates data sorting means for forming a data set organized by
monitored categories out of numerical data obtained by numericizing information
acquired by monitoring market trends (**Wong,** p195 C1:25-41; Examples of
market trends or categories of applicant is equivalent to 'location, frequency and

scale' of Wong.); analyzing means for performing multi-resolution analysis on
said data set using a discrete wavelet transform with a plurality of base functions
to obtain multi-resolution analysis results for each of said plurality of base
functions (**Wong,** p195 C1:25-41; 'Market trends' of applicant is equivalent to
'location, frequency and scale' of Wong. 'Base functions' of applicant is
equivalent to 'Dirac Delta' functions of Wong.); and correlating means for
determining a correlation factor between the respective multi-resolution analysis
results obtained by said analyzing means and said data set (**Wong,** p195, C2:15-
21; 'Correlation factor' of applicant is equivalent to 'frequency activities' between
the Australian dollar and the Japanese yen, British pound and Hong Kong dollar
of Wong.); wherein, based on said correlation factor, rates of reproduction in said
data set is assessed according to the multi-resolution analysis results when using
each of said plurality of base functions. (**Wong,** p195, C2:15-21; Wong illustrates
both high and low frequency activities of approximate of market trends.
'Assessed' of applicant is demonstrated by Wong by the signal nature is 'smooth
and regular'.)

Conclusion

4.   The prior art of record and not relied upon is considered pertinent to the
applicant's disclosure.

-U. S. Patent 6151584: Papierniak

-U. S. Patent 5999908: Abelow

-U. S. Patent 5950171: Madell

-U. S. Patent 5878403: DeFrancesco

-U. S. Patent 5819263: Bromley

-U. S. Patent 5454104: Steidlmayer

-U. S. Patent 5038284: Kramer

-U. S. Patent 4323766: Brachthauser

-U. S. Patent 6119026: McNulty

-U. S. Patent Publication 20030088460

-U. S. Patent Publication 20020082900

-U. S. Patent 6898583

-'What is the 'True Price' state space models for high frequency FX data':Moody

-'A hybrid system using multiple cyclic decomposition methods and neural networks techniques for point forecast decision making': Shin

-'Index Fund Trading with Learning Network Advisors': Echauz

-'Optimal Signal Multi-Resolution by Genetic Algorithms to Support Artificial Neural Network Models for Financial Forecasting': Shin

-'A Neural Network that Explains as Well as Predicts Financial Market Behavior': Ornes

5.   Claims 1-9 are rejected.

Correspondence Information

6.   Any inquiry concerning this information or related to the subject disclosure

should be directed to the Examiner Peter Coughlan, whose telephone number is

(571) 272-5990. The Examiner can be reached on Monday through Friday from

7:15 a.m. to 3:45 p.m.

If attempts to reach the Examiner by telephone are unsuccessful, the

Examiner's supervisor David Vincent can be reached at (571) 272-3687. Any

response to this office action should be mailed to:

Commissioner of Patents and Trademarks,

Washington, D. C. 20231;

Hand delivered to:

Receptionist,

Customer Service Window,

Randolph Building,

401 Dulany Street,

Alexandria, Virginia 22313,

(located on the first floor of the south side of the Randolph Building);
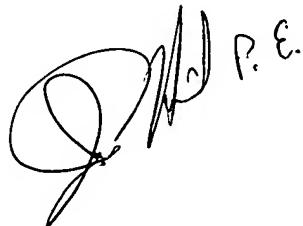
or faxed to:

(571) 273-8300 (for formal communications intended for entry.)

Information regarding the status of an application may be obtained from

the Patent Application Information Retrieval (PAIR) system. Status information

for unpublished applications is available through Private PAIR only. For more

information about the PAIR system, see http://pair-direct.uspto.gov. Should you

have any questions on access to Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll free).

Peter Coughlan

5/31/2006